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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 23873 | 7590 | 12/28/2005 | EXAMINER | |
| ROBERT W STROZIER, P.L.L.C | | | STOICA, MARIA | |
| PO BOX 429 | | | ART UNIT | |
| BELLAIRE, TX 77402-0429 | | | PAPER NUMBER | |
| | | | 3715 | |

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/699,805

Applicant(s)

THORNTON, WILLIAM

Examiner

Maria Stoica

Art Unit

3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 8-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the human body encasing (i.e. the upper body portion, the arms, etc.) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the resilient cover of the invention along with the specified shape of the encasing (i.e. the upper body portion, the arms, etc.) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).
3. Figures 1-24 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: in the description of Figures 29-32 on p. 8, an extra 'i' is present in the phrase "the present i invention." Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The phraseology "where the arterial pulse is detected and monitored by a medical professional" refers to non-statutory subject matter (i.e., the human being). Alternate suggested wording: --where the arterial pulse is adapted to be detected and monitored by a medical professional--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 8-11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Abrahamson et al. (US Patent No. 3,520,071). Abrahamson discloses an apparatus for simulating a pulse and correlated heart beat of an animal, the apparatus comprising a playback device for generating a first electronic signal corresponding to a pulse (col. 3, line 73) and a second electronic signal corresponding to a correlated heart beat (col. 3, line 73), a tactile pulse simulator for receiving the pulse signal and generating a pressure pulses simulating an arterial pulse discernible by touch (col. 8, lines 39-44, lines 48-52) and an audio simulator for receiving the correlated heart beat signal (col. 9, lines 40-45) and recreating the heart beat to be heard through a stethoscope (col. 4, lines 8-9).

Regarding claim 8, Abrahamson discloses that the tactile pulse simulator comprises a collapsible tube apparatus (col. 8, lines 39-47).

Regarding claim 9, Abrahamson discloses that the tactile pulse simulator and the audio simulator are housed within a housing (col. 6, lines 10-11; col. 9, lines 72-74).

Regarding claim 10, Abrahamson discloses that the tactile pulse simulator comprises a resilient cover covering a tactile switch capable of generating pulses simulating the arterial pulse (col. 9, lines 57-72).

Regarding claim 11, Abrahamson discloses that the housing comprises a simulated upper part of a human body including a simulated chest portion and simulated arm portion (Figure 1).

Regarding claim 14, Abrahamson discloses that the tactile pulse simulator is within a first housing (193) and the audio simulator is within a second housing (190) (Figure 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahamson in view of Takashina et al. (US Patent No. 6,461,165). Abrahamson discloses an apparatus for simulating a right side pulse and correlated heart beat of an animal, the apparatus comprising a playback device for generating a first electronic signal corresponding to the right side pulse and a second electronic signal corresponding to a correlated heart beat (col. 3, line 73; col. 9, lines 57-72), a tactile pulse simulator for receiving the right pulse signal and generating a pressure pulses simulating a right side arterial pulse discernible by touch (col. 8, lines 39-44, lines 48-52), and an audio simulator for receiving the correlated heartbeat signal (col. 9, lines 40-45) and recreating the heartbeat to be heard through a stethoscope (col. 4, lines 8-9).

Abrahamson does not disclose the simulation of a left side pulse along with an electronic signal corresponding to the left side pulse and a tactile pulse simulator for receiving the left pulse signal and generating a pressure pulses simulating a left side arterial pulse discernible by touch. However, Takashina teaches the placement of electric pulse generators (col. 1, lines 63-67) on both sides of the body, more specifically both arms (Figure 2, items 5, 6, 7, and 8). It would have been obvious to one of ordinary skill in the art at the time of invention to place the structure described by Abrahamson on both sides of a manikin as taught by Takashina to create a complete simulation, as opposed to a half-body simulation, of the human heart beat and pulse.

Regarding claim 16, Abrahamson discloses that the tactile pulse simulator comprises a collapsible tube apparatus (col. 8, lines 39-47).

Regarding claim 17, Abrahamson discloses that the tactile pulse simulators and the audio simulator are housed within a housing (col. 6, lines 10-11; col. 9, lines 72-74), where the housing comprises a simulated upper part of a human body including a simulated chest portion, a simulated right arm portion and a simulated left arm portion (Figure 1).

9. Claims 12-14 and 18-24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahamson in view of Takashina, further in view of Elwell (US Patent No. 3,298,132).

Regarding claim 20, Abrahamson discloses an apparatus for simulating an arterial pulse and correlated heart beat of a human, the apparatus comprising:

a housing including a simulated upper human body portion having a chest portion, a right arm portion, and a left arm portion (Figure 1);

a playback device for generating a first electronic signal corresponding to the right side arterial pulse and a second electronic signal corresponding to a correlated heart beat (col. 3, line 73; col. 9, lines 57-72);

a first tactile pulse simulator for receiving the right pulse signal and generating a pressure pulse simulating a right side arterial pulse discernible by touch (col. 8, lines 39-44, lines 48-52); and

an audio simulator for receiving the heart beat signal and generating an audible recreation of the correlated heart beat (col. 9, lines 40-45), so that the heart beat can be heard through a stethoscope (col. 4, lines 8-9).

Abrahamson does not disclose that the tactile pulse simulator is located at a lower inner arm position in the right arm of the housing. However, Takashina teaches that the pulse generators can be located at the brachial artery or radial artery positions (col. 4, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time of invention to place the pulse generator at an inner position on the lower arm in order to simulate the pulse at a position on the human body where it is commonly known that the pulse is the easiest to detect.

Abrahamson, as modified by Takashina, does not disclose the simulation of a left side arterial pulse along with an electronic signal corresponding to the left side pulse and a tactile pulse simulator for receiving the left pulse signal and generating a pressure pulse simulating a left side arterial pulse discernible by touch, where the second tactile

pulse simulator is located at an inner wrist position in the left arm of the housing. However, Takashina teaches the placement of electric pulse generators (col. 1, lines 63-67) on both sides of the body, more specifically both arms (Figure 2, items 5, 6, 7, and 8). It would have been obvious to one of ordinary skill in the art at the time of invention to place the structure described by Abrahamson on both sides of a manikin as taught by Takashina to create a complete simulation, as opposed to a half-body simulation, of the human heart beat and pulse.

Abrahamson, as modified by Takashina, does not specifically disclose that the audio simulator is located in the chest portion of the housing. However, Elwell teaches placing the audio simulator at this location (col. 4, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time of location to modify the manikin of Abrahamson/Takashina to place the audio simulator in the chest portion of the housing in order to mimic the pulse sound more realistically, as generating from the heart.

Regarding claim 12, Abrahamson does not expressly disclose that the tactile pulse simulator is located in the arm portion at a wrist portion corresponding to a location used by medical professionals to detect and monitor the patient's arterial pulse. However, Takashina teaches that the pulse generators can be located at the brachial artery or radial artery positions (col. 4, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time of invention to place the pulse generator at an inner position on the lower arm in order to simulate the pulse at a position on the human body where it is commonly known that the pulse is the easiest to detect. Abrahamson, as modified by Takashina, does not expressly disclose that the audio simulator is located

within the chest portion. However, Elwell teaches placing the audio simulator at this location (col. 4, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time of location to modify the manikin of Abrahamson/Takashina to place the audio simulator in the chest portion of the housing in order to mimic the pulse sound more realistically, as generating from the heart.

Regarding claim 13, Abrahamson, as modified by Takashina and Elwell, discloses that the tactile pulse simulators comprise a resilient cover covering the tactile switch capable of generating pulses simulating the arterial pulse (col. 3, lines 62-67; col. 9, lines 57-72).

Regarding claim 14, Abrahamson discloses that the tactile pulse simulator comprises a resilient cover covering a tactile switch capable of generating pulses simulating the arterial pulse (col. 9, lines 57-72). Abrahamson does not expressly disclose that the first housing simulates a human wrist or that the tactile pulse simulator is located at a position in the wrist corresponding to a position in the patient where the arterial pulse is detected and monitored. However, Takashina teaches that the pulse generators can be located at the brachial artery or radial artery positions (col. 4, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time of invention to place the pulse generator at the wrist in order to simulate the pulse at a position on the human body where it is commonly known that the pulse is the easiest to detect.

Regarding claim 18, Abrahamson, as modified by Takashina, teaches that the tactile pulse simulators are located in the right and left arm portion at a wrist portion

corresponding to a location used by medical professionals to detect and monitor a the patient's arterial pulse (Figure 2 and col. 4, lines 63-67 of Takashina) Although neither Abrahamson nor Takashima specifically disclose that the audio simulator is located within the chest portion, Elwell teaches this concept (col. 4, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time of location to modify the manikin of Abrahamson/Takashina to place the audio simulator in the chest portion of the housing in order to mimic the pulse sound more realistically, as generating from the heart.

Regarding claim 21, Abrahamson, as modified by Takashina and Elwell, discloses that the tactile pulse simulator comprises a collapsible tube apparatus (col. 8, lines 39-47).

Regarding claim 22, Abrahamson, as modified by Takashina and Elwell, discloses that the tactile pulse simulators and the audio simulator are housed within a housing (col. 6, lines 10-11; col. 9, lines 72-74), where the housing comprises a simulated upper part of a human body including a simulated chest portion, a simulated right arm portion and a simulated left arm portion (Figure 1).

Regarding claim 23, Abrahamson, as modified by Takashina and Elwell, teaches that the tactile pulse simulators are located in the right and left arm portion at a wrist portion corresponding to a location used by medical professionals to detect and monitor a the patient's arterial pulse (Figure 2 and col. 4, lines 63-67 of Takashina) and the audio simulator is located within the chest portion (col. 4, lines 30-45 of Elwell).

Regarding claims 19 and 24, Abrahamson, as modified by Takashina and Elwell, discloses that the tactile pulse simulators comprise a resilient cover covering the tactile switch capable of generating pulses simulating the arterial pulse (col. 3, lines 62-67; col. 9, lines 57-72).

10. Claims 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahamson in view of Takashina. Abrahamson discloses an apparatus for simulating a pulse and correlated heart beat of a human, the apparatus comprising a playback device for generating an electronic signal corresponding to the right side pulse and a second electronic signal corresponding to a correlated heart beat (col. 3, line 73; col. 9, lines 57-72); a first housing including a first tactile pulse simulator for receiving the right side arterial pulse signal and generating a pressure pulses corresponding to a right arm arterial pulse discernible by touch (col. 8, lines 39-44, lines 48-52); and a second housing including an audio simulator for receiving the heart beat signal and generating an audible recreation of the correlated heartbeat (col. 9, lines 40-45) and designed to be heard through a stethoscope position on a surface of the housing (col. 4, lines 8-9).

Abrahamson does not disclose a second electronic signal corresponding to the left side pulse and an additional housing including a second tactile pulse simulator for receiving the left side arterial pulse signal and generating a pressure pulses corresponding to a left arm arterial pulse discernible by touch. However, Takashina teaches the placement of electric pulse generators (col. 1, lines 63-67) on both sides of the body, more specifically both arms (Figure 2, items 5, 6, 7, and 8). It would have

been obvious to one of ordinary skill in the art at the time of invention to place the structure described by Abrahamson on both sides of a manikin as taught by Takashina to create a complete simulation, as opposed to a half-body simulation, of the human heart beat and pulse.

Regarding claim 26, Abrahamson, as modified by Takashina, discloses that the tactile pulse simulator comprises a collapsible tube apparatus (col. 8, lines 39-47).

Regarding claim 27, Abrahamson, as modified by Takashina and Elwell, discloses that the tactile pulse simulators comprise a resilient cover covering the tactile switch capable of generating pulses simulating the arterial pulse (col. 3, lines 62-67; col. 9, lines 57-72).

Response to Arguments

11. Applicant's arguments with respect to claims 1-2 and 8-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ingentio et al. (US Patent No. 4,932,879) discloses a manikin with sensors simulating a carotid pulse. Messmore (US Patent No. 4,601,665) and Gordon et al. (US Patent No. 3,662,076) disclose simulating a pulse at different points on a manikin in the shape of the upper half of the human body. Ackerman (US Patent No. 3,564,729) discloses a manikin for training medical professionals that comprises

blood pressure sensors and a heart beat sound. Ravin (US Patent No. 3,399,467) discloses a heart sound simulator.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Stoica whose telephone number is (571) 272-5564. The examiner can normally be reached on M-F: 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MS

Chanda L. Harris
CHANDA L. HARRIS
PRIMARY EXAMINER